MONTGOMERY COLLEGE **Department of Mathematics Rockville Campus**

MA 103 KATIRAIE QUIZ #3 Form A SECTIONS (2.4, 3.1, 3.2) FALL 2006

NAME _______ SCORE: ____/ 20
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1. Find the slope - intercept form of a line parallel to 2y+3x=1, passing through (- 4, 3)

2. Find the slope - intercept form of a line perpendicular to $y = \frac{-1}{4}x + 5$, passing through (- 3, -4)

- 3. In 1998 Toyota sold 1.5 million vehicles. This number increased to 1.8 million in 2003.
- a) Find a linear function that models the data.

- b) Determine the year when Toyota sold 1.7 million vehicles by solving a linear equation.
- c) Predict the year when Toyota may sell 2 million vehicles.
- 4. The length of a rectangular room is 3 feet more than its width. If the perimeter of the room is 85 feet, find the width and length of the room.

5. Solve the following equations:

a.
$$\frac{3x}{3} - \frac{2x}{4} = \frac{1}{6}$$
 b. $\frac{3x+1}{3} = \frac{2x-1}{3}$